

Notice of Allowability

Application No.

09/916,212

Examiner

Julian Mercado

Applicant(s)

WELLS ET AL.

Art Unit

1745

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 3-4-04.
2. ☒ The allowed claim(s) is/are 1-19 and 24-32.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☒ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date 10/7/03.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Remarks

This Office action is responsive to applicant's amendment filed March 4, 2004.

Claims 20-23 have been canceled. Claims 1-19 and 24-32 remain pending.

Drawings

As set forth in the prior Office action, the drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description:

- a. Figures 5, 6 and 7 do not show the "directional arrows" of the cooling air stream as mentioned in page 15 at line 20-25.

Acknowledgement is made of applicant's submission of replacement drawings.

However, these drawings appear identical to the original and the annotated sheets do not appear to show that any changes were made.

Claim Rejections - 35 USC § 102

The rejection of claims 20 and 21 under 35 U.S.C. 102(b) based on Meltser et al. (U.S. Pat. 5,763,113) is deemed moot in view of the cancellation of these claims.

The rejection of claims 9-12 under 35 U.S.C. 103(a) based on Meltser et al. and Boehm et al. (U.S. Pat. 5,763,113) has been obviated for the reasons below. The examiner additionally notes that Fletcher et al. was an inadvertently cited as part of this ground of rejection.

The rejection of claims 1, 4-8, 13, 19, 22, 23 and 32 under 35 U.S.C. 103(a) based on Meltser et al. has been obviated for the reasons below. This rejection as would be applicable towards claims 22 and 23 is deemed moot in view of the cancellation of these claims.

The examiner notes that independent claims 1 and 13 have been amended to recite an oxidant delivery system while independent claim 32 has been amended to recite that at least a portion of the means for supplying an oxidant to the stack is different from the coolant flow path. In Meltser et al. the cathode air fluid flow was relied upon as a coolant flow path, since the fluid air from the cathode is exhausted out of the fuel cell as a hot gas. The examiner concedes with applicant's assertion that Meltser et al. teaches locating the hydrogen concentration sensor in the cathode exhaust stream, thus, by positively reciting an oxidant delivery system, the scope of claims 1, 13 and 32 effectively call for Meltser et al.'s cathode exhaust stream to meet the limitation of an oxidant flow path. By this amendment, the hydrogen concentration sensor in Meltser et al. may no longer be interpreted as being in the coolant flow path since the coolant flow path is now claimed as mutually distinct from the oxidant flow path.

Allowable Subject Matter

Claims 1, 4-13, 19 and 32 are allowed for the reasons set forth above.

Claims 2, 3, 14-18, and 24-31 are allowed in view of claims 2, 14 and 24 being rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: the prior art of record and to the examiner's knowledge do not teach or render obvious at least to the skilled artisan the instant invention regarding, in a first embodiment, a hydrogen concentration

Art Unit: 1745

sensor located in a coolant flow path at a location downstream of a fuel cell stack wherein the coolant flow path is not the cathode flow path of the fuel cell, and regarding, in a second embodiment, the fuel regulating system being located in the coolant flow path at a location downstream of the stack.

In addition to the discussion of Meltser et al. above as applicable to the first embodiment of the claimed invention, as set forth in the prior Office action for the second embodiment of the claimed invention in Meltser et al. the fuel and oxidant air streams are regulated separately, thus, to the extent that the oxidant air stream in Meltser et al. may be relied upon to read on the instant coolant stream, the fuel regulating system would not be obvious to be positioned in the same stream as the oxidant stream at a location downstream of the stack.

Conclusion

New corrected drawings are required in this application for the reasons set forth above. Applicant is advised to employ the services of a competent patent draftsman outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian Mercado whose telephone number is (571) 272-1289. The examiner can normally be reached on Monday through Friday.

Art Unit: 1745


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick J. Ryan, can be reached on (571) 272-1292. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.



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